

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018955**Date Inspected:** 11-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower / OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector,Baskar Govindarajan, was present during the times noted above for observations relative to the work being performed.

Bay #10

This QA Inspector observed the following work in progress

Tower

Shielded Metal Arc Welding (SMAW)

Weld joint # 81 located on North Tower, Lift4, Skin B, Façade support plate NSD1- FBSA4 -1A/C. Welder is identified as 040270. ZPMC Quality Control (QC) Inspector is identified as Chen Tau. The welding variables recorded by QC appeared to comply with the WPS – B – P -2114.

Weld joint # 77 located on North Tower, Lift4, Skin B, Façade support plate NSD1- FBSA4 -1A/C. Welder is identified as 044504. ZPMC Quality Control (QC) Inspector is identified as Chen Tau. The welding variables recorded by QC appeared to comply with the WPS – B – P -2114.

Orthotropic Box Girder (OBG)

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### Flux cored Arc welding (FCAW)

Weld joint # 008, located on Bike path BK 004A2 -030. Welder is identified as 040302. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 -Esab.

Weld joint # 021, located on Bike path BK 004A2 -030. Welder is identified as 052075. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 -Esab.

### Shielded Metal Arc Welding (SMAW)

Weld joint # 014 located on Bike path BK 004A2 -030. Welder is identified as 066326. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112 -Plug.

Weld joint # 044 located on Bike path BK 004A1 -001. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114 – B – U4.

Weld joint # 029 located on Bike path BK 007A6 -001. Welder is identified as 040268. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112.

### Bay #11

This QA Inspector observed the following work in progress

### Tower

### Shielded Metal Arc Welding (SMAW)

Weld joint # 83 located on West Tower, Lift4, Skin B, Façade support plate WSD1- FBSA4 -2 A/C. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Zhong Lei. The welding variables recorded by QC appeared to comply with the WPS – B – P - 2114.

### Flux cored Arc welding (FCAW)

Weld joint # 78, 86 located on West Tower, Lift4, Skin B, Façade support plate WSD1- FBSA4 -2 A/C. Welder is identified as 040736, 205649. ZPMC Quality Control (QC) Inspector is identified as Sun Zhi Wang. The welding

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variables recorded by QC appeared to comply with the WPS – B – T – 2132 -Esab.

Orthotropic Box Girder (OBG)

Shielded Metal Arc Welding (SMAW)

Repair welding of Weld joint # 002 located on Bike path BK004A5 -023. Welder is identified as 040655. ZPMC Quality Control (QC) Inspector is identified as You Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – 345 –SMAW -1G (1F) Repair.

Magnetic Particle Testing (MT)

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 07738

This QA inspector performed (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated a TL 6028 MT report for this date. The member is identified as Tower components. The weld designations reviewed are as follows:

NSD1 –TL5 -3E/F – Jt. nos. -1, 2

NSD1 –TL5 -3E/F – Jt. nos. -17, 18

For further information see below pictures:-

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

No relevant Conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Hu (15002048250), who represents the Office of Structural Materials for your project.

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**Inspected By:** Baskar, Govindarajan

Quality Assurance Inspector

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**Reviewed By:** Clifford, William

QA Reviewer